

**Amendments to the Claim:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) Method for prophylaxis or treatment of cancer cachexia in an individual in need ~~of~~ thereof, comprising administration to said individual of a prophylactically or therapeutically effective amount of a ghrelin-like compound or a pharmaceutically acceptable salt thereof, wherein the ghrelin-like compound comprises a structure defined by formula I

$Z^1 - (X^1)_m - (X^2) - (X^3)_n - Z^2$ , wherein

$Z^1$  is an optionally present protecting group

each  $X^1$  is independently selected from an amino acid, wherein said amino acid is selected from the group consisting of naturally occurring and synthetic amino acids,

$X^2$  is any amino acid selected from the group consisting of naturally occurring and synthetic amino acids, said amino acid being modified with a bulky hydrophobic group

each  $X^3$  is independently selected from an amino acid, wherein said amino acid is selected from the group consisting of naturally occurring and synthetic amino acids,

wherein one or more of  $X^1$  and  $X^3$  optionally may be modified with a bulky hydrophobic group,

Z<sup>2</sup> is an optionally present protecting group,

m is an integer in the range of from 1-10

n is ~~0~~ or an integer in the range of from ~~1~~15-35,

and wherein:

(a) said ghrelin-like compound or pharmaceutically acceptable salt thereof is 27-28 amino acids in length, with the proviso that said ghrelin-like compound is at least 80 % homologous to SEQ ID NO 1, ~~such as at least 85 % homologous to SEQ ID NO: 1~~

and/or

(b) said ghrelin-like compound or pharmaceutically acceptable salt thereof is at least 90 % homologous to SEQ ID NO 1,  
wherein said ghrelin-like compound or pharmaceutically acceptable salt thereof has prophylactic or therapeutic activity against cancer cachexia,  
wherein, for prophylaxis, the individual is one who is suffering from cancer, and said prophylaxis lowers the risk of cancer cachexia in the individual.

2. (Previously Presented) The method according to claim 1, wherein said ghrelin-like compound is at least 95 % homologous to SEQ ID NO 1.

3. (Previously Presented) The method according to claim 1, wherein said ghrelin-like compound is at least 98 % homologous to SEQ ID NO 1.

4. (Cancelled).

5. (Withdrawn) The method according to claim 1, wherein X<sup>2</sup> is selected from the group consisting of modified Ser, modified Cys and modified Lys.

6. (Previously Presented) The method according to claim 1,

wherein the ghrelin-like compound is selected from a compound of

formula II  $Z^1 - \text{Gly} - (X^1)_{m-1} - (X^2) - (X^3)_n - Z^2$ ,

formula III  $Z^1 - \text{Gly} - \text{Ser} - (X^2) - (X^3)_n - Z^2$ , and

formula IV  $Z^1 - \text{Gly} - (X^2) - (X^3)_n - Z^2$ .

7-12. (Cancelled).

13. (Previously Presented) The method according to claim 1, wherein the ghrelin-like compound is ghrelin or a pharmaceutically acceptable salt thereof.

14. (Previously Presented) The method according to claim 1, wherein the ghrelin-like compound has SEQ ID NO: 1, SEQ ID NO: 2, or SEQ ID NO: 3.

15. (Previously Presented) The method according to claim 1, wherein the medicament is in a formulation for subcutaneous administration.

16. (Previously Presented) The method according to claim 1, wherein the formulation comprises the ghrelin-like compound or a salt thereof as a lyophilisate and the formulation further comprises a solvent, said lyophilisate and said solvent being in separate compartments until administration.

17. (Previously Presented) The method according to claim 1, wherein the formulation is a solution of the ghrelin-like compound or a salt thereof.

18. (Previously Presented) The method according to claim 16 wherein the solvent is saline.

19. (Previously Presented) The method according to claim 1, wherein the medicament is administered prior to or during a meal.

20. (Previously Presented) The method according to claim 1, wherein the medicament is administered in a concentration

equivalent to from 10 ng to 10 mg ghrelin per kg bodyweight.

21. (Cancelled).

22. (Previously Presented) The method according to claim 1, wherein the medicament is administered in a concentration equivalent to from 0.1  $\mu$ g to 1 mg ghrelin per kg bodyweight.

23. (Previously Presented) The method according to claim 1, wherein the medicament is administered as a bolus prior to or during a meal, said bolus comprising an amount of the ghrelin-like compound or a salt thereof equivalent to from 0.3  $\mu$ g to 600 mg ghrelin.

24-26. (Cancelled).

27. (Previously Presented) The method according to claim 1, wherein the cancer cachexia is caused by a catabolic disorder.

28. (Previously Presented) The method according to claim 1, wherein the cancer cachexia is caused by an anorectic disorder.

29. (Previously Presented) The method according to claim 1, where the individual is suffering from a cancer selected from the group consisting of lung cancer, pancreatic cancer, liver cancer, and GI tract cancers.

30. (Cancelled).

31. (Previously Presented) The method according to claim 1, wherein the treatment or prevention of cancer cachexia leads to stimulation of appetite, stimulation of food intake, stimulation of weight gain or weight maintenance, and/or increased body fat mass.

32. (Cancelled).

33. (Previously Presented) The method of claim 1, further comprising subjecting the individual to an anti-neoplastic treatment.

34. (Previously Presented) The method according to claim 33, wherein the antineoplastic treatment is radiotherapy.

35. (Previously Presented) The method according to claim 33, wherein the antineoplastic treatment is chemotherapy.

36. (Cancelled).

37. (Previously Presented) The method of claim 1, further comprising administration of an effective amount of an NSAID medicament.

38. (Cancelled).

39. (Currently Amended) A method for stimulation of appetite in an individual, comprising administering to the individual a subcutaneous dosage of a medicament comprising a appetite-stimulatory amount ghrelin-like compound or a pharmaceutically acceptable salt thereof, in a formulation for subcutaneous administration,

wherein the ghrelin-like compound comprises a structure defined by formula I

$Z^1 - (X^1)_m - (X^2) - (X^3)_n - Z^2$ , wherein

$Z^1$  is an optionally present protecting group

each  $X^1$  is independently selected from an amino acid, wherein said amino acid is selected from the group consisting of naturally occurring and synthetic amino acids,

$X^2$  is any amino acid selected from the group consisting of naturally occurring and synthetic amino acids, said amino acid being modified with a bulky hydrophobic group,

each  $X^3$  is independently selected from an amino acid, wherein said amino acid is selected from the group consisting of naturally occurring and synthetic amino acids,

wherein one or more of  $X^1$  and  $X^3$  optionally may be modified with

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a bulky hydrophobic group, ~~preferably~~ an acyl group, or a fatty acid,

Z<sup>2</sup> is an optionally present protecting group,

m is an integer in the range of from 1-10

n is ~~0 or~~ an integer in the range of from ~~±15~~-35

and wherein

(a) said ghrelin-like compound or pharmaceutically acceptable salt thereof is 27-28 amino acids in length, with the proviso that said ghrelin-like compound is at least 80 % homologous to SEQ ID NO 1, ~~such as at least 85 % homologous to SEQ ID NO: 1~~

and/or

(b) said ghrelin-like compound is at least 90 % homologous to SEQ ID NO 1,

wherein said ghrelin-like compound or pharmaceutically acceptable salt thereof has appetite-stimulatory activity.

40. (Previously Presented) The method according to claim 39, wherein the ghrelin-like compound has SEQ ID NO: 1, SEQ ID NO: 2, or SEQ ID NO: 3.

41-42. (Cancelled).

43. (Previously Presented) The method according to claim 39, wherein the medicament is administered in a concentration equivalent to from 10 ng to 10 mg ghrelin per kg bodyweight.

44. (Previously Presented) The method according to claim 39, wherein said individual is suffering from lipodystrophy.

45. (New) The method according to claim 1 wherein clause (a) applies, and said ghrelin-like compound is at least 85% homologous to SEQ ID NO:1.

46. (New) The method of claim 1 wherein the compound has an ED50 for activation of the ghrelin receptor GHS-R 1A of less than 500 nM.

47. (New) The method of claim 1 wherein the dissociation constant (Kd) for the dissociation of the complex of the compound with the ghrelin receptor GHS-R 1A is less than 500 nM.

48. (New) The method of claim 1 wherein said ghrelin-like compound has at least 50% of the activity of wild-type human ghrelin with respect to stimulation of the ghrelin receptor GHS-R 1A.

49. (New) The method of claim 1 wherein the amino acid sequence of said ghrelin-like compound differs from that of human ghrelin solely by (1) N- or C-terminal extensions, (2) N- or C-terminal truncations, or (3) conservative amino acid substitutions.

50. (New) The method according to claim 1, wherein said ghrelin-like compound is at least 90% homologous to SEQ ID NO:1.

51. (New) The method according to claim 1 wherein all amino acids are alpha-amino acids.

52. (New) The method according to claim 1 wherein all amino acids are L-amino acids.